REBUTTAL TESTIMONY OF
DAVID K. PICKLES
ON BEHALF OF
SOUTH CAROLINA ELECTRIC & GAS COMPANY
DOCKET NO. 2009-261-E

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION.

A. My name is David K. Pickles. I am the Southern and Central Region Vice President - Energy Efficiency Practice, for ICF International (ICF). My business address is 7160 North Dallas Parkway, Suite 340, Plano, Texas 75024.

Q. HAVE YOU PREVIOUSLY SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to address certain issues raised in the Direct Testimonies of William Steinhurst and Thomas Lyle on behalf of the Southern Environmental Law Center ("SELC") and the South Carolina Coastal Conservation League ("SCCCL"), and by Randy Gunn on behalf of the Office of Regulatory Service ("ORS"). Specifically, I will address:

- Dr. Steinhurst and Mr. Lyle's assertions that the potential for DSM is understated,

- Dr. Steinhurst's assertion that the Commission should inflate avoided costs and discount DSM costs to reflect; 1) carbon costs, 2) environmental risks, and 3) comparative lower risks of DSM,
- Dr. Steinhurst and Mr. Gunn's assertions that specific important programs are neglected, and
- Mr. Lyle and Mr. Gunn's assertions that detailed program designs are not specified or barriers to program participation are not addressed,

My testimony will demonstrate that:

- Dr. Steinhurst and Mr. Lyle's assertions that the filing understates the potential for DSM are unfounded, and Dr. Steinhurst and Mr. Lyle present no credible alternate study for the Commission's consideration.
- SCE&G's proposed programs compare very well with those of its peers, and it would be inappropriate to require SCE&G to expand its programs at this initial stage of DSM program expansion.
- The recommended adjustments to inflate the benefits of DSM and discount its costs are inappropriate.
- SCE&G's programs as filed are sufficiently comprehensive with respect to the measures and customer segments targeted.

Q. DO YOU CONCUR WITH DR. STEINHURST AND MR. LYLE'S ASSERTION THAT THE POTENTIAL FOR DSM IN SCE&G'S FILING IS UNDERSTATED?

A. No. Dr. Steinhurst and Mr. Lyle (collectively the CCL witnesses) appear to misunderstand the purpose of SCE&G's potential analysis, and of this proceeding. As to the long-run potential for DSM, CCL witnesses cite a variety of reports from other states or organizations that project DSM impacts as far as 15 years into the future. However, the purpose of SCE&G's analysis was to identify a set of programs that are: a) cost-effective, b) acceptable to regulators and customers, c) reasonably achievable, and d) otherwise satisfy SCE&G's obligations to effectively manage its business. Importantly, SCE&G wanted to understand the potential (not only in terms of MW and MWh, but also in terms of the cost to customers, impact on rates, and effect on the system, etc.) of programs which SCE&G could introduce immediately. Hence, SCE&G chose a three year planning horizon, and anticipates updating its plans on a regular basis. Contrary to the CCL witnesses assert, the three-year horizon was not a constraint placed upon the analysis. It was instead a means to generate focus in SCE&G's analysis and to ensure that the study resulted in actionable recommendations. Criticizing SCE&G's three-year impacts based on extrapolating reports from other states or service territories over much longer planning horizons is simply not appropriate.

Q. WHAT EVIDENCE DO THE CCL WITNESSES PROVIDE TO SUPPORT THEIR CONTENTION THAT DSM POTENTIAL IS UNDERSTATED?

A. The CCL witnesses rely primarily upon:

- Extrapolating the conclusions of other reports of DSM potential. However, as discussed below, these reports are not representative of the SCE&G service territory and cannot be used for the purposes of assessing the reasonableness of SCE&G's filed programs,
- Comparison of the reported DSM program savings of a variety of other utilities. However, the relevance of this experience has not been closely analyzed by these witnesses and is often not applicable to SCE&G, and
- Incorrect assertions regarding certain short-comings in SCE&G's analysis.

Q. HAVE THE CCL WITNESSES PRESENTED ANY ANALYSIS OF THE COST-EFFECTIVENESS OF DSM?

A. No. The CCL witnesses have offered no analysis of the cost-effectiveness of any DSM programs for SCE&G, and have not demonstrated that any additional DSM over and above the amount proposed by SCE&G would be cost-effective. Dr. Steinhurst asserts that DSM is "the cheapest way" to provide energy to utility customers. This is not necessarily the case, and as will be demonstrated later, certain of the programs and technologies which the CCL witnesses assert are missing from the SCE&G programs are clearly not cost-effective. As such they

would: a) increase annual revenue requirements, b) increase average rate levels, and c) cost more than the supply-side alternatives.

Q. DO YOU CONCUR WITH MR. LYLE'S ASSERTION THAT THE COMPANY COULD EASILY ACHIEVE ANNUAL INCREMENTAL DSM SAVINGS OF 1.5%?

A. No. Savings of 1.5% (approximately twice the level proposed by SCE&G) would be difficult to achieve, would not necessarily be cost-effective or otherwise appropriate, and would require a very large investment of ratepayer funds. Further, Mr. Lyle does not provide any analytical support for his assertion of the appropriateness and ease of this savings level.

By way of comparison, using Energy Information Administration ("EIA") data for the Year 2007, we compiled savings data as a percentage of retail sales for 80 program administrators, with a minimum budget of $1 million for DSM programs, across the country, and found only five program administrators that had achieved savings of 1.5% of retail sales.[1]

In addition, all five of these program administrators are located in New England and California - two regions that have comparatively high retail electric rates and avoided costs. Because high avoided costs lead to greater cost-

1 It is not clear that the data reported on EIA form 861 by all utilities uses consistent assumptions regarding baselines or net-to-gross ratios. To the extent that the Form 861 number represents gross savings (i.e., includes savings that would occur even in the absence of the utilities' programs) the savings reported therein are not comparable (i.e., are inflated) relative to SCE&G's savings, which are net. Further, these data are self-reported and are not verified for consistency or accuracy in reporting.

effectiveness for DSM investments and increased savings potential, a more appropriate comparison is with program administrators in the same region as SCE&G. Using the same data source, we found that 19 Southern region program administrators had achieved median savings of 0.1% of retail sales.

I believe that SCE&G's planned portfolio is aggressive, both compared to top-performing program administrators and utilities across the country, and to its peers regionally. If we were to include SCE&G's Year 3 planned savings of 0.7% of retail sales in the EIA dataset, the Company would rank in the top 17% of DSM program administrators nationally. Further, in comparison to program administrators in states in the Southern region with similar retail rates and avoided costs, SCE&G's planned savings are approximately six times greater than the average savings of its peers.

Mr. Lyle also fails to take into account the possibility that large customers will opt-out of DSM programs. To the extent that the Commission finds that large customers may be eligible to opt-out of SCE&G's proposed programs, SCE&G may find it more difficult to achieve such large savings. In addition, savings in the future will be more difficult to obtain than they have been in the past since one of the primary sources of historic savings (compact fluorescent lamps)[2] will be required by Federal law starting in 2012. Further, since South Carolina, like many states has chosen to significantly increase building code efficiency levels, it is

2 Note that the savings reported by program administrators on Form 861 have often been very reliant (as much as 80%) upon the use of CFLs.

becoming harder for utilities to design programs that cost-effectively improve efficiency levels above these new more efficient building codes.

I believe achieving the savings as set forth in SCE&G's filing will be a daunting task. Clearly, achieving levels roughly twice that high is subject to a great deal of complexity, risk, and uncertainty and it is likely to be unachievable if cost-effectiveness is a concern.

Q. MR. LYLE CITES A RECENT REPORT FROM ACEEE THAT ESTIMATES THE POTENTIAL FOR ENERGY EFFICIENCY IN SOUTH CAROLINA AS EVIDENCE OF SCE&G'S "UNDERESTIMATION" POTENTIAL. DO YOU AGREE?

A. No. Quite the contrary. The ACEEE report actually serves to reinforce the reasonableness of much of SCE&G's analysis. For example, the average annual incremental energy savings from "proven utility programs" as cited by ACEEE is approximately 0.5% per year (compared to SCE&G's proposed savings of 0.7% by Year 3). The remaining ACEEE savings come from a variety of unproven programs or from strategies that are unavailable to SCE&G. Some of these strategies include: a) specifying new state and local building codes (which SCE&G cannot do), b) a combined heat and power program (which is precluded by anti-fuel switching rules), c) weatherization and government building programs funded by ARRA (which SCE&G does not have direct access to) and others. Further, there are numerous differences in the assumptions and methodology used by ACEEE for its statewide analysis and the assumptions and methodology that

SCE&G used for its service territory specific analysis. Suffice it to say, the ACEEE report (as its authors note) serves as a starting point for discussion among the state's policymakers and stakeholders on how to utilize energy efficiency as a resource in the long-term. Its general and long-term nature, some very aggressive assumptions, as well as a lack of detailed South Carolina and SCE&G specific information limit its usefulness when considering specific DSM programs for SCE&G.

Q. MR. LYLE ASSERTS THAT ICF'S ANALYSIS UNDERESTIMATES THE POTENTIAL BECAUSE EMERGING TECHNOLOGIES, SPECIFIC MEASURES, AND ENTIRE CUSTOMER SEGMENTS WERE INAPPROPRIATELY EXCLUDED FROM THE ANALYSIS. DO YOU AGREE WITH THIS ASSERTION?

A. No. Mr. Lyle mentions LED lighting as one example of a technology that is "fast becoming cost-effective" and "significantly more efficient" than current lighting technologies. However, Mr. Lyle fails to mention that while LED lighting is becoming more cost-effective, it is currently cost-ineffective from the total resource, utility, and participant cost perspectives. For example, the use of a compact fluorescent lamp ("CFL") to replace an incandescent lamp results in a total resource cost ("TRC") benefit-cost ratio of 2.45. The use of an LED lamp to replace an incandescent lamp (the default installed technology) results in a TRC benefit-cost ratio of 0.21. This is due to the relatively high cost of LEDs. While

this cost may come down in the future, LEDs will not be a cost effective measure until that time.

Mr. Lyle also asserts that solar water heating is a viable technology. However, we found that solar water heating was not cost-effective (0.60 TRC ratio) and therefore, was not included in a DSM program. Conversely, Mr. Lyle asserts incorrectly that heat pump water heaters are not included, while the fact is SCE&G found them to be cost-effective (4.01 TRC ratio) and included them as a measure in the Residential Lighting and Appliances program.

Mr. Lyle also asserts that ductless heat pumps are a viable technology. This technology was not included in the measure cost-effectiveness analysis because it has historically only been applied in the Pacific Northwest region and is not a typical technology included in utility air conditioning rebate programs. Further, the incremental costs for this technology can range between $4,500 and $6,000, and would not be cost-effective according to the TRC test. In the future, if the measure is found to be both cost-effective and attractive to customers, it could be included in the Residential New HVAC and Water Heater program.

Mr. Lyle also asserts that entire customer segments were excluded from the analysis, including the agricultural and governmental sectors, and wastewater treatment facilities. However, this is not the case. The energy usage from these sectors was included in ICF's analysis of the total load that could be reduced, and total program participation includes customers from these segments. Similarly, customers from these segments are able to participate fully in these programs;

SCE&G has designed the programs to be flexible such that additional measures that are specific to these and other niche customer segments can be incorporated into the program at any time in the future.

SCE&G has done a thorough job identifying technologies, analyzing cost-effectiveness, assessing market needs and barriers, and designing its programs. SCE&G believes that it will continue to be appropriate to evaluate new technologies and cost assumptions, to refine program designs and marketing methods, and to introduce new programs. However, Mr. Lyle's assertion that SCE&G's approach has somehow led to a significant and inappropriate limitation of the proposed programs is not supported by the facts.

Q. IN HIS DIRECT TESTIMONY MR. LYLE STATES THAT, "THE POTENTIAL FOR GREATER SAVINGS [THAN THAT SHOWN IN SCE&G'S DSM PLAN]…IS NOT MARKEDLY DIFFERENT FROM THE POTENTIAL FOR COST-EFFECTIVE SAVINGS IN OTHER JURISDICTIONS." (LYLE, P. 16, LINES 13-14) DO YOU CONCUR WITH MR. LYLE'S CONCLUSION?

A. No. Comparing DSM potential across jurisdictions is often a complex exercise, since potential estimates project *future* DSM savings, and methodologies and assumptions used to develop potential estimates vary widely. It is more appropriate here to compare SCE&G's potential estimates to actual program performance of DSM programs run by utilities in comparable markets.

Q. PLEASE SHOW WHY STATES CHOSEN BY MR. LYLE AS HAVING COMPARABLE DSM POTENTIAL TO SOUTH CAROLINA ACTUALLY SUPPORT, INSTEAD OF UNDERMINE, THE SAVINGS LEVELS IN SCE&G'S DSM PLAN.

A. Mr. Lyle directly compares DSM potential in South Carolina to Iowa and Illinois: "The opportunities to reduce electricity consumption are as ample in South Carolina as they are in, for example, Iowa or Illinois." (Lyle, p. 16, lines 17-19). Based on recent actual program performance (U.S. EIA Form 861 Data, 2007), statewide kWh savings as a percentage of kWh sales were approximately 0.8% in Iowa and 0.01% in Illinois (Note: a forthcoming 2008 program evaluation for a large IOU in Illinois shows 2008 program savings of approximately 0.3%). If one were to directly compare these statewide results to those projected in SCE&G's plan, a reasonable conclusion is that the annual savings projected in the Company's plan are appropriate.

Q. PLEASE SHOW WHY PROGRAM RESULTS FROM UTILITIES CHOSEN BY MR. LYLE AS HAVING COMPARABLE CLIMATES TO SCE&G'S DOES NOT DEMONSTRATE THAT GREATER COST-EFFECTIVE SAVINGS IS POSSIBLE IN SCE&G'S TERRITORY.

A. Mr. Lyle directly compares DSM potential in SCE&G's territory to that in the territories of Austin Energy (TX), Gainesville Regional Utilities (FL), and Nevada Power Company. These three utilities operate in three different states, under three different utility regulation paradigms, and with three different rate

structures (TX, FL and NV all have average rates higher than SC's); only one is investor owned (Nevada Power). Based on recent actual program performance (U.S. EIA Form 861 Data, 2007), Austin Energy achieved savings equaling approximately 1.0% of annual sales, Gainesville Regional Utilities achieved approximately 0.8%, and Nevada Power Company, approximately 0.7%. What this data shows is that of the three utilities Lyle asserts are comparable to SCE&G in this matter, only Austin Energy (a municipal utility) achieved savings that are "markedly" different than those projected in SCE&G's potential study (0.7% by 2012). Note also that each of these utilities ran DSM programs for several years prior to 2007; each portfolio underwent a ramp-up period similar to that which is built into SCE&G's DSM Plan.

Q. MR. LYLE ARGUES THAT IN ORDER FOR UTILITIES IN THE SOUTHEAST TO ACHIEVE ANNUAL SAVINGS OF 1.0% OR MORE "ALL THAT IS NEEDED TO ACQUIRE THESE RESOURCES ARE WELL-DESIGNED PROGRAMS THAT ARE SUPPORTED OVER THE LONG TERM WITH ADEQUATE RESOURCES AND A FASTER RAMP UP PERIOD." PLEASE RESPOND TO THIS STATEMENT.

A. This statement implies that the solution to the challenge of prudently increasing the level of DSM is simply to throw more money at it. Based on my experience managing programs around the country, this is simply not the case, especially given the current state of the economy and the relatively low retail

electric rates in South Carolina, which are limiting factors. Unlike power plants, which are on call during a given day and can be made ready for dispatch at the flip of switch, a utility cannot force consumers to participate in DSM programs – what it can do is educate consumers about the benefits of program participation, tell them how they can participate, provide incentives to participate, and provide additional education to ensure persistence of savings, as appropriate. In today's economic climate, families and businesses may find the prospect of significant DSM investments less attractive than in the past (during periods where utilities in states such as California and Vermont reported high savings levels).

Also, many technologies are only cost-effective to deploy at the time long-lived assets are replaced. For example, while it may be cost-effective to upgrade the efficiency of a central air-conditioner when it fails, it is typically not cost-effective to decommission an operating central air conditioner in favor of a new high efficiency unit. Since only so many air-conditioners fail each year, there are certain "engineering constraints" to the amount of DSM that can be achieved cost-effectively during any period.

Similarly, experience has shown that it is preferable to gradually introduce more stringent (and efficient) program requirements over time. For example, a typical residential air-conditioner incentive program may start by simply providing an incentive for high SEER units, as well as educational materials regarding the benefits of appropriate sizing, duct sealing, maintenance, etc. To require all the "bells and whistles" in Year 1 of a program (e.g., mandating a load calculation and

a “quality installation” with standards such as air-flow tolerances, duct leakage, duct design standards, etc.) will simply alienate trade allies and reduce participation in the programs. In my experience, it is more appropriate to demonstrate to trade allies (over a period of years) the value of such practices and to gradually introduce requirements for such practices as trade allies become more receptive to the programs. Simply put, we should not “let perfection be the enemy of the good,” and we should not assume that more money is necessarily prudent money.

Ramping-up DSM initiatives is not simply a matter of dispatching a program when it is needed; it takes time to build the infrastructure required for a successful DSM portfolio, including training contractors and retailers, building market acceptance, and gradually introducing increasingly complex programs to the market. To quote the direct testimony of Dr. Steinhurst on this matter, **“**It takes time to build an effective program infrastructure, and even more time to build the relationships that help realize long-lasting and pervasive savings in the market.” (Steinhurst, p. 5, lines 18-19).

Q. PLEASE PROVIDE EXAMPLES FROM ACTUAL PROGRAMS THAT ILLUSTRATE THE TIME REQUIRED FOR RAMP-UP.

A. The table below includes program savings data from three utilities that began implementing programs during the past decade. The data covers the first four years of program implementation. What the data illustrates is that savings achievements during program ramp-up varies considerably and do not always

change in a positive direction; like most business investments, DSM programs take time to become established and there are usually bumps along the way. For example, savings achievements by Connecticut Light & Power actually decreased after the first year before increasing again in the fourth year, whereas We Energies' savings vacillated marginally each year for the first four years; savings achieved by Arizona Public Service increased in the first three years and remained steady in the fourth year. The trajectories of these particular programs were influenced by myriad factors, including current code and standards, market maturity, and the regulatory environment, amongst others. Some of these codes and standards have changed/are changing (e.g., the SEER baseline for ACs/the incandescent bulb phase-out, which begins in 2012), and in general SCE&G will be operating programs under circumstances that vary considerably from those under which programs operated historically in other states.

	Connecticut Light & Power			We Energies			Arizona Public Service		
Program Year	Calendar Year	DSM Program Electric Savings as % of Annual Sales	% Change in Savings from Previous Year	Calendar Year	DSM Program Electric Savings as % of Annual Sales	% Change in Savings from Previous Year	Calendar Year	DSM Program Electric Savings as % of Annual Sales	% Change in Savings from Previous Year
1	2001	1.0%		2005	0.1%		2004	0.1%	
2	2002	0.8%	-0.2%	2006	0.3%	0.2%	2005	0.4%	0.3%
3	2003	0.4%	-0.4%	2007	0.2%	-0.1%	2006	0.9%	0.5%
4	2004	1.0%	0.6%	2008	0.3%	0.1%	2007	0.9%	0.0%

Emulating historical program performance by particular utilities in other states is not the Company's goal; the Company's plan proposes best practice, cost-effective programs for the next three years that will achieve reasonable levels of savings

and build the market and infrastructure for DSM in SCE&G's territory so that greater savings levels are achievable in the future.

Q. ARE THE ACHIEVEMENTS OF THE ADMINISTRATORS SET FORTH ON PAGE 24 OF MR. LYLE'S TESTIMONY RELEVANT FOR THE PURPOSES OF ASSESSING THE SUFFICIENCY OF SCE&G'S PROGRAMS?

A. With limited exception, no. Most of the utilities in this table are not IOUs and are therefore not directly comparable to SCE&G. Munis, coops, and other non-investor owned utility-run programs are not always subject to the same degree of regulatory oversight or rigor in savings reporting as IOU programs. Further, certain of these non-IOU programs are not held to the same cost-effectiveness standards as IOU-run programs.

	Utility	Ownership
1	Glidden Rural Electric Coop	Cooperative
2	Laurens Electric Coop, Inc	Cooperative
3	Pacific Gas & Electric Co	Investor Owned
4	Southern California Edison Co	Investor Owned
5	Connecticut Light & Power Co	Investor Owned
6	Massachusetts Electric Co	Investor Owned
7	United Illuminating Co	Investor Owned
8	Western Massacusetts Elect Co	Investor Owned
9	Fitchburg Gas & Elect Light Co	Investor Owned
10	Narragansett Electric Co	Investor Owned
11	Arizona Public Service Co	Investor Owned
12	Madison Gas & Electric Co	Investor Owned
13	City of Breckenridge	Municipal
14	City of Windom	Municipal
15	Rochester Public Utilities	Municipal
16	Eugene City of	Municipal
17	Reedy Creek Improvement Dist	Municipal
18	Burlington City of	Municpal
19	Merced Irrigation District	Political Subdivision
20	Snohomish County PUD No 2	Political Subdivision
21	Sacramento Municipal Utility Dist	Political Subdivision

Of the ten IOUs included by Mr. Lyle in this table few are comparable in size to SCE&G, and none of them operate in the Southeast. Further, some of these IOUs have operated programs for a decade or more (e.g. PG&E and SCE). In summary, the historical achievements of the program administrators included in this table are not relevant in assessing how SCE&G's program may perform in the future.

IOU	Region	2007 Sales (GWh)	% Above/ Below SCE&G Sales
Southern California Edison Co	West	79,505	259%
Pacific Gas & Electric Co	East	79,451	259%
Arizona Public Service Co	West	29,171	32%
SCE&G	**Southeast**	**22,117**	**-**
Connecticut Light & Power Co	East	16,054	-27%
Massachusetts Electric Co	East	12,544	-43%
Narragansett Electric Co	East	6,808	-69%
United Illuminating Co	East	5,917	-73%
Madison Gas & Electric Co	Midwest	3,350	-85%
Western Massacusetts Elect Co	East	2,099	-91%
Fitchburg Gas & Elect Light Co	East	276	-99%

Q. DR. STEINHURST RECOMMENDS THAT THE COMMISSION INFLATE THE AVOIDED COSTS AND DISCOUNT DSM PROGRAM COSTS FOR THE PURPOSES OF CALCULATING TRC BENEFITS AND COST. DO YOU AGREE WITH THIS RECOMMENDATION?

A. No. To do so would artificially inflate the benefit cost ratios associated with each DSM program. I will discuss each of Dr. Steinhurst's three recommended adjustments separately:

1. Inflate Avoided Costs to Reflect Carbon Costs

Dr. Steinhurst asserts that SCE&G has assumed a zero cost of complying with future carbon cost regulations, and that as a result SCE&G's projected avoided capacity and energy costs are too low and should be inflated to correct this error. However, Dr. Steinhurst mischaracterizes SCE&G's analysis and his proposed adjustment is unnecessary and would result in double counting of carbon costs.

In fact, SCE&G *did* include estimates of future carbon costs in the production cost modeling that provided the avoided costs used in the screening of DSM programs. These costs reflect the higher dispatch costs that the SCE&G generating fleet will experience if future carbon regulations are adopted, and no further adjustment is necessary.

2. Inflate Certain Avoided Costs by 10% to Reflect Environmental Risks

Dr. Steinhurst asserts that SCE&G should inflate certain avoided costs to reflect environmental costs such as "land-use impacts." It is not clear what "land use impacts" are involved. However, Dr. Steinhurst presents no evidence supporting the selection of 10% as an appropriate adjustment, and I believe such an adjustment would significantly overstate any such impacts. Dr. Steinhurst correctly notes that such an approach was used occasionally in the 1990s; however its application there was primarily as a "short-cut" to estimating carbon costs and other emissions (the primary component of all environmental externality cost estimates of which I am aware.) Since SCE&G has included or "internalized" the cost of carbon and other emissions in its analysis, any adjustment for other unquantified benefits of DSM is likely to be small. Absent a detailed assessment of the appropriate value, and recognizing that even if such an adjustment were to be made (within any reasonable bounds) it would not have a significant impact on the analysis and conclusions presented by SCE&G, I recommend against making the adjustment.

3. Discount DSM Program Costs by 10% to Reflect "Risk Avoidance"

Dr. Steinhurst asserts that it is appropriate to discount the costs of the DSM programs (while at the same time inflating its benefits) by 10% to reflect his belief that DSM is less risky than supply side investments. Dr. Steinhurst offers no empirical evidence of the reduced risk, of how that reduced risk is translated into reduced actual financial cost to customers or SCE&G, nor of the appropriateness of the 10% adjustment factor. While the risk of DSM investments are different than those of supply side investments, it is not clear that they are on-net lower than supply side risks. For example, there are significant risks that the DSM programs will be unable to provide the anticipated load relief. If SCE&G relies upon the programs to meet future load obligations and defers plans to construct new capacity, yet the programs fail to mitigate load growth it becomes "too late" to build additional capacity: SCE&G customers will be faced with paying potentially very high wholesale market prices or having to support the high costs of an "emergency construction" program. Absent an empirical comparison of the risk of supply and demand side alternatives, it is inappropriate to make the adjustments recommended by Dr. Steinhurst.

Q. BOTH MR. GUNN (PAGE 5, LINE 18) AND DR. STEINHURST (PAGE 35, LINES 9-12) RECOMMEND THAT SCE&G SHOULD INCLUDE LOW INCOME PROGRAM(S) IN ITS PORTFOLIO. DID THE COMPANY EVALUATE LOW INCOME PROGRAMS?

A. Yes. The Company's plan does provide a unique provision to low income customers by proposing to provide high incentives to qualified low income customers for participating in the Residential Energy Check-up and Home Performance Audit program. SCE&G evaluated stand-alone low income programs, and chose to defer introduction of such a program until the impacts of the American Recovery and Reinvestment Act (ARRA) on both customer demand and infrastructure become clearer. In 2009 the U.S. DOE earmarked approximately $59 Million in Weatherization Assistance Program (WAP), ARRA-authorized funding for South Carolina. The State is planning to weatherize approximately 6,500 low income homes over the next three years. SCE&G's programs will support the State's effort by building-up energy efficiency infrastructure that WAP programs can use. Any additional low income initiatives implemented by the Company need to complement WAP program efforts, not compete with them, and not enough is known at this time to design a complementary low income program.

The Commission should also bear in mind that low income programs face uniquely complicated issues; in particular, low income programs are typically not cost effective and therefore require cross-subsidies from other ratepayer classes.

Q. MR. GUNN (PAGE 5, LINE 19) RECOMMENDS THAT SCE&G INCLUDE A REFRIGERATOR RECYCLING PROGRAM IN ITS PORTFOLIO. DID THE COMPANY EVALUATE APPLIANCE RECYCLING PROGRAMS?

A. Yes. SCE&G evaluated appliance recycling programs and concluded that they are unlikely to be cost-effective over the next three years given anticipated demand and interest. Typically for an appliance recycling center to be cost-effective requires at least 10,000 recycled units per year for three years – a level of demand the Company does not believe an appliance recycling DSM program could meet. Our analysis projected that over three years the program would result in approximately 15,500 recycled units. Given the business model of appliance recycling companies, this program would be more effective if implemented on a Statewide level.

Q. MR. GUNN RECOMMENDS THAT A COMMERCIAL NEW CONSTRUCTION PROGRAM BE ADDED TO THE PORTFOLIO IN YEAR TWO OR THREE. DO YOU AGREE WITH THIS RECOMMENDATION?

A. While a Commercial New Construction program could be an attractive component of SCE&G's DSM portfolio in the long-term, I do not recommend that SCE&G introduce such a complex and "niche-focused" program as a part of its initial portfolio. This is due to the fact that current economic conditions in SCE&G's territory have severely limited commercial new construction activity,

and potential program participation would not be commensurate with the necessary program budget. In addition, this type of program is complicated and requires long lead times in order to coordinate with new construction trade allies, including developers, construction firms, equipment manufacturers and distributors. The Company will consider this program element as a future enhancement to its portfolio. During this time, new construction customers are still eligible to participate in the Commercial and Industrial Prescriptive and Custom programs.

Q. MR. GUNN RECOMMENDS THAT A SMALL COMMERCIAL PROGRAM BE INCLUDED IN THE PORTFOLIO. DO YOU AGREE WITH THIS RECOMMENDATION?

A. The Commercial Prescriptive program is by nature a "small commercial" program because approximately 97 percent of SCE&G's commercial customers are small businesses. SCE&G intends to specifically target small commercial customers in marketing this program.

Q. MR. GUNN AND MR. LYLE ASSERT THAT DETAILED PROGRAM DESIGNS ARE NOT SPECIFIED AND THAT OTHER BARRIERS ARE NOT ADDRESSED. DO YOU AGREE WITH THESE ASSERTIONS?

A. No. It is neither standard industry practice nor necessary to finalize all program design details at this stage of the proceedings. After Commission approval, the final implementation details will be documented and available for

the Commission's review. In fact, it is standard industry practice to finalize many of the design details only after regulatory approval has been obtained.

Interveners will have additional opportunities to review and provide input on program designs in future filings. However, the implication that the Company is unaware of, or is ignoring certain program design details or principles, is inaccurate.

Q. GUNN (PAGE 6, LINE 3) RECOMMENDS, "LOWERING THE CUSTOMER FEES FOR THE RESIDENTIAL ENERGY CHECK-UP AND HOME PERFORMANCE AUDIT." PLEASE EXPLAIN WHY THE FEES IN THE PLAN ARE SET AT THEIR CURRENT LEVELS.

A. SCE&G does not set the price of the audit; participating contractors set the charges. ICF anticipates that Tier 2 audits will cost customers between $300 and $600, reflecting actual audit costs as charged by the market in jurisdictions where ICF has operated whole home/home performance type programs. Tier 2 audits cost are "expensive" because of the level of professional training and/or certification required to perform a Tier 2 audit, the cost of the diagnostic tools employed, the time required to perform the audits, and the level of education provided to customers by the auditor (i.e., the cost of doing business for the auditor plus additional program costs).

Further, the incentive was calculated to meet the standards that apply to all incentives to ensure that measures and programs pass the TRC test and will in fact

provide sufficient benefits to support their cost. While the cost may seem high at first blush, the incentive (whether it covers much or a little of the audit cost) is only one aspect of this program that makes it valuable to customers and SCE&G. The Residential Energy Check-up and Home Performance Audit program will help create and sustain the market for home performance services by:

- Recruiting, screening, and training contractors, along with verifying that participating contractors hold appropriate certifications from national certification organizations;
- Developing a standardized process for conducting audits and calculating and reporting energy savings;
- Marketing the program to residential customers;
- Ensuring that energy audit is conducted pursuant to program standards; and
- Providing technical and customer support.

Q. MR. GUNN ASSERTS THAT THE SPECIFIC INCENTIVE AMOUNTS SHOULD BE SPECIFIED FOR THE COMMERCIAL AND INDUSTRIAL PROGRAMS. DO YOU AGREE WITH THIS ASSERTION?

A. No. The Company has set forth the basic design philosophy for the Commercial and Industrial programs' incentive development. For similar programs the list of "actual" incentives on a measure by measure basis can be in the thousands. For example, Baltimore Gas & Electric's program for Business

customers contains 466 eligible measure combinations for just the lighting end-use alone. This detailed list is not necessary, especially since a tenet of this type of program design is flexibility; the Company will need this flexibility to modify the program over time, as the market and customer preferences dictate. The Company will include more specific incentive amounts in future program filings.

Q. THE CCL WITNESSES SUGGEST THAT THE SCE&G PROGRAMS EMPLOY "CREAM SKIMMING" AND RESULT IN "LOST OPPORTUNITIES". DO YOU CONCUR?

A. No. The CCL witnesses provide no specific examples of, or remedies for, the "cream skimming" they assert, and it is difficult to determine precisely what is being recommended. While it can be argued that customers can sometimes "do more" than initially required by the SCE&G programs, I believe the programs strike an appropriate balance between the number and nature of measures promoted, the availability of non-financial incentives, and the ability of the comparatively immature trade ally infrastructure to support the programs.

SCE&G screened a total of 369 DSM measures, resulting in 267 measures that are included in at least one program. This results in a comprehensive measure (or "opportunity") list that provides savings opportunities for each end-use and sub-sector for the primary customer segments. Further, SCE&G's portfolio attempts to minimize lost opportunities wherever possible. For example, the Tier

2 residential audit includes a comprehensive assessment of a very broad range of cost-effective measures that could be implemented by the homeowner. SCE&G intends that the auditor make recommendations for appropriate measures even when such measures are not eligible for SCE&G incentives, and SCE&G anticipates updating the list of qualifying measures and incentive levels over time. Similarly, the ENERGY STAR New Homes program minimizes lost opportunities at the whole-home level, and permits homebuilders to receive incentives for a very wide range of construction upgrades.

In the non-residential sector, SCE&G has attempted to reduce the possibility of cream-skimming through the design of its Custom program. The program offers per project incentives and technical assistance to non-residential customers who want to install high efficiency measures that are not included in the Prescriptive program.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.